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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/662,158

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Alan R. Poulter

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05/23/2005

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EXAMINER

DUONG, FRANK

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/662,158

Applicant(s)

POULTER ET AL.

Examiner

Frank Duong

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is a response to communications dated 11/29/04. Claims 10-40 are pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 10-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Byham et al (USP 6,594,231) (hereinafter "Byham").

Regarding **claims 10-11**, in accordance with Byham reference entirety, Byham discloses a method for controlling a plurality of network communication units (Fig.1; Units 1-3), which are linked by a cascading connection (see Fig. 1) that provides a communication path (Repeat Path) for data packets from any unit to any other unit, comprising:

establishing a control path (Arbitration Path) for control messages (arbitration packets) from each unit to the next, the control path being distinct from said communication path (*col. 3, lines 14-30*);

sending along said control path control messages which include fields denoting an identification (MAC) of a communication unit and a count (BoxID) of communication units which are operative to receive and forward data packets on said communication path; and

for each respective unit (Fig. 1; Unit 1-Unit 3):

altering the identification to denote the respective unit (col. 5, line 40 or col. 6, lines 56-62);

incrementing the said count if the respective unit is operative to receive and forward data packets on said communication path (col. 5, lines 49-65); and

determining when said count is complete and broadcasting a total count by way of control messages on said control path (col. 6, line 47 to col. 7, line 14).

Regarding **claim 12**, in accordance with Byham reference entirety, Byham discloses a hub unit (Fig. 3) having ports 101, 120, 111 and 112 and multiplexers (108 and 117) provide a bypass of a pod to which an active communication unit is not coupled (col. 4, lines 20-59).

Regarding **claim 13**, in addition to features recited in base claim 12 (see rationales discussed above), Byham further discloses wherein each port transmits and receives control messages so as to determine the status of a communication unit to which the respective port is connected, the multiplexers being controlled by control logic (107) responsive to the control messages (Fig. 3 and col. 4, lines 20-59).

Regarding **claim 14**, in addition to features recited in base claim 12 (see rationales discussed above), Byham further discloses a configuration packet provided

by a unit a repeated mode (depicted in Figure 6), in which the BoxID field is incremented by a unity.

Regarding **claim 15**, in accordance with Byham reference entirety, Byham discloses a connecting unit (Fig. 3) having ports 101, 120, 111 and 112; a control logic (107) and multiplexers (108 and 117) provide a bypass of a port to which an active communication unit is not coupled (col. 4, lines 20-59).

Regarding **claim 16**, in addition to features recited in base claim 15 (see rationales disclosed above), Byham further discloses the multiplexers being controlled to bypass a port which an active communication unit is not connected (Fig. 3 and col. 4, lines 20-59).

Regarding claim 17, in addition to features recited in base claim 16 (see rationales disclosed above), Byham further discloses a configuration packet provided by a unit a repeated mode (depicted in Figure 6), in which the BoxID field is incremented by a unity.

Regarding **claim 18**, in addition to features recited in base claim 15 (see rationales disclosed above), Byham further discloses a configuration packet provided by a unit a repeated mode (depicted in Figure 6), in which the BoxID field is incremented by a unity.

Regarding **claim 19**, in accordance with Byham reference entirety, Byham shows (Figs. 1-4) a cascade, stack or ring of hub units and a stackable network unit (Fig. 3) having ports 101, 120, 111 and 1 12, a control logic (107) and multiplexers (108 and 1

17) provide a bypass of a port to which an active communication unit is not coupled (col. 4, lines 20-59).

Regarding **claim 20**, in addition to features recited in base claim 19 (see rationales discussed above), Byham also discloses wherein the connecting units (Fig. 3) provide a data path for packets in each of two directions around the ring (see Fig. 1).

Regarding **claim 21**, in addition to features recited in base claim 19 (see rationales disclosed above), Byham also discloses wherein for each connecting unit the control logic receives control messages indicating an identification number and to provide control messages modified to indicate an increase in the identification number (col. 5, lines 61-65 and col. 6, lines 56-62).

Regarding **claim 22**, in addition to features recited in base claim 19 (see rationales discussed above), Byham also discloses wherein for each connecting unit the control logic receives a count which represent a number of active communication units and provides a count which is incremented by unity or not according as an active communication unit is or is not coupled to the third port of the respective connecting unit (col. 5, lines 61-65 and col. 6, lines 56-62).

Regarding **claims 23-26**, see figure 3 and the description at col. 4, line 1 to col. 5, line 48 for the details of hub unit. (Note; Claims 27-40 are rejected by the same rationales applied to claims 19-26)

Regarding **claim 27**, in accordance with Byham reference entirety, Byham discloses a hub unit (Fig. 3) having ports 101, 120, 11 and 112 and multiplexers (108 and 117) and control logic (107) for determining for each port a link status and for

controlling the multiplexers to bypass of a port to which an active communication unit is not coupled (col. 4, lines 20-59).

Regarding **claims 28-32**, the claims are rejected by the same rationales applied to claims 18-26 or by the description at col. 4, lines 20-59 and thereafter.

Regarding **claim 33**, in accordance with Byham reference entirety, Byham discloses a connecting unit (Fig. 3) having pods 101, 120, 111 and 112 and multiplexers (108 and 117) and control logic (107) for determining for each port a link status and for controlling the multiplexers to bypass of a port to which an active communication unit is not coupled (col. 4, lines 20-59).

Regarding claims 34-37, the claims are rejected by the same rationales applied to claims 18-26 or by the description at col. 4, lines 20-59 and thereafter.

Regarding **claim 38**, in accordance with Byham reference entirety, Byham shows the cascade connection of the hub units in Figures 1, 2 and 4 and discloses the details of a connecting unit (Fig. 3) having ports 101, 120, 111 and 112 and multiplexers (108 and 117) and control logic (107) for determining for each port a link status and for controlling the multiplexers to bypass of a port to which an active communication unit is not coupled (col. 4, lines 20-59).

Regarding **claim 39**, in addition to features recited in bas: claim 38 (see rationales discussed above), Byham further discloses wherein the control messages include a field (Arb/Gnt) for causing the control logic to treat the reception of control messages as the absence of control messages (col. 5, lines 49-60).

Regarding **claim 40**, in addition to features recited in base claim 38 (see rationales discussed above), Byham further discloses a count which represents a number of active communication units and to provide a count which is incremented or not according as an active communication unit is coupled to the third port (col. 6, lines 56-62).

Response to Arguments

3. Applicants' arguments filed 11/29/04 have been fully considered but they are not persuasive. Applicants' arguments will be addressed hereinbelow in the order in which they appear in the response filed 11/19/04.

In the Remarks of the outstanding response, on page 12, it is noted Applicants included a statement "*Byham '231 patent is also commonly assigned with the present application*". This statement is also known as "commonly own statement" used to disqualify a rejection under 35 U.S.C. 103(a) when a patent being used in the rejection and an application being under examined are commonly own by the same assignee. However, this statement has no effect in the rejection other than that.

Also on page 12 of the response, pertaining the rejection of claims 12-40, Applicants argue "*As one simplified way to recognize the major deficiencies of Byham et al. '231, it need only be noticed that apparatus claims 12-40 relate to a special three-port connecting unit that is simply never taught or suggested anywhere in Byham et al. '231*".

In response Examiner respectfully disagrees and asserts Byham et al '231 clearly anticipates the claimed invention in a manner as recited. The disclosed invention is a T-piece unit having up port, down port, modular port, multiplexers and control circuit as depicted in Figures 9 and 17 referenced to specification on page 11 and thereafter to allow cascading connection of communication hubs. However, the claimed invention just broadly calls for connecting units having three ports, multiplexers providing data paths for packets from ports to include bypassing non-active port. The preamble of the claims call for an intended use and the "adapted for" language suggests or makes option the claimed limitation as later recited. However, Examiner has properly treated all claimed limitations. As clearly pointed out in the Office Action, Byham discloses just that.

Also on page 12 continues to page 13 of the Remarks, pertaining the rejection of claims 10-11, Applicants argue "*Similarly, method claims 10-11 utilize separate control messages as opposed to the mere headers of packets (as in Byham et al. '231) and thus also cannot possibly be anticipated (or suggested) by anything found in Byham '231*".

In response Examiner respectfully disagrees for the following rationales.

First, method claims 10-11 are not corresponded to apparatus claims 12-40. Thus, arguments pertaining the rejection of apparatus claims 12-40 are not applicable to method claims 10-11.

Second, Applicants fails to clearly point out the claimed features missing from Byham '231. As for the term "control messages", it is equated to corresponding to

"arbitration packets". Since there is neither specific definition for the "control messages" in the claims or in the specification, it is given broadest reasonable interpretation in light of the supporting disclosure. In *re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023,1027-28 (Fed. Cir. 1997). Moreover, there is no clear distinction between the claimed "*separate control messages*" and Byham's "*arbitration packets*" referred as "*mere headers of packets*" by the Applicants. Byham, as clearly pointed out in the Office Action, discloses an arbitration path 13 for sending the arbitration packets around the ring enabling units to determine which will be the master ('231, col. 3, lines 14-30) corresponding to the claimed limitation as recited.

On page 13 of the Remarks continues to page 14, Applicants attempt to explain the distinction between the ***disclosed invention*** (emphasis added) and that of Byham has been noted. Applicants seem to imply "connector" is the claimed feature of "connecting unit" for no clear reason. The claims do not define "connecting unit" is the "connector".

In the Remarks of the outstanding response, on pages 14-15, Applicants allege Examiner making errors and boldly assert "*Byham et al. does not disclose any connectors at all, does not disclose three-port connectors, does not disclose the bypassing of each of those three ports (in the connector) when it is not connected to an active unit and does not disclose separate control and signal (packet) paths, the allegation of anticipation by Byham is without foundation*".

Applicants' assertion has been noted. In response Examiner respectfully disagrees with the Applicants' implication that the claimed feature of "connecting unit" is

the "connector". The claims do not define "connecting unit" is the "connector".

Applicants' argument, on the other hand, is without foundation. Examiner asserts, as clearly pointed out in the Office Action, Byham reference does anticipate the claims in a manner as recited.

Examiner believes an earnest attempt has been made in addressing all of the Applicants' arguments. Due to the amendment fails to place the instant application in a favorable condition for allowance and the arguments are not persuasive, the rejection is maintained.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Frank Duong', with a stylized, flowing script.

Frank Duong
Primary Examiner
Art Unit 2666

May 18, 2005